



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/067,179	02/04/2002	Edward B. Devine	8392-69554	4895
23643	7590	06/15/2004	EXAMINER	
BARNES & THORNBURG 11 SOUTH MERIDIAN INDIANAPOLIS, IN 46204			HAMMOND, BRIGGITTE R	
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/067,179

Applicant(s)

EDWARD DEVINE

Examiner

Brigitte R. Hammond

Art Unit

2833

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-7, 23-27 and 29-36 is/are pending in the application.
- 4a) Of the above claim(s) 36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 23-27 and 29-33 is/are rejected.
- 7) ☒ Claim(s) 34 and 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 25, 2004 has been entered.

However, newly submitted claim 36 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: claim 36 does not read upon fig. 4, which applicant originally elected.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 36 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Kooiman 6,109,964. Koolman discloses an device comprising a hollow body forming an

outer conductor 30, an inner conductor 20 extending through the outer conductor, one end of the inner and outer conductors define a signal input of the device, the other end of the inner and outer conductors defining a signal output of the device, an electrical insulator 23 disposed between the inner and outer conductors, a first water tight seal 63 between the insulator and the inner conductor and a second sealing member 62 positioned between the insulator and the outer conductor; the first and second seals being located on a line extending generally perpendicularly through the longitudinal axis (see attachment of fig 1).

Regarding claim 5, the outer surface of the insulator of Kooiman defines a first channel extending completely around an outer periphery of the insulator in a direction perpendicular to the longitudinal axis of the body wherein a first sealing member is disposed therein.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kooiman in view of Vaccaro et al. 5,154,636 or alternatively Lundback et al. 6,133,532. Kooiman discloses the invention substantially as claimed except for the insulator having an inner surface that defines a second channel and the second sealing member being disposed therein. However, Vaccaro et al. teaches an insulator 24 having an inner

surface that defines a second channel and a second sealing member being disposed therein (not numbered, see fig. 3). Therefore it would have been obvious to one of ordinary skill to modify the device of Kooiman by providing the insulator with an inner surface that defines a channel for the sealing member as taught by Vaccaro et al. Should issues arise, such change is further obvious in view of Lundback et al. which also shows an insulator having an inner surface that defines a second channel and the second sealing member being disposed therein.

Regarding claim 7, the first and second sealing members of Koolman are flexible sealing rings.

Claims 1-3 and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (AAPA) as disclosed in fig 1, in view of Kooiman. AAPA discloses in combination a transmission line 18 having attached thereto a first connector 16 configured for connection to a second connector associated with an antenna signal source 14.

AAPA does not disclose a fluid blocking device at one end of the connector comprising inner and outer conductors separated by an insulator with at least two seals located on a line extending generally perpendicularly through the transmission line. However, Kooiman discloses a fluid blocking device comprising an outer conductor 30 and an inner conductor 20, said conductors are separated by an insulator 23 watertight sealed to the inner and outer conductors by seals 62 and 63 (see col. 7, lines 8-13). Seals 62 and 63 are located on a line extending generally perpendicularly through the transmission line. Therefore it would have been obvious to one of ordinary skill to

modify the device of AAPA by providing a fluid blocking device comprising inner and outer conductors and a watertight seals to provide a moisture barrier as taught by Kooiman.

Regarding claims 2 and 24, AAPA discloses an antenna as the signal source 14.

Regarding claims 3 and 25, AAPA discloses another transmission line 22 as a signal source.

Regarding claim 26, Kooiman discloses the a first sealing member 62 positioned between the insulator and the outer conductor and a second sealing member 63 positioned between the insulator and the inner conductor creating the watertight seal therebetween.

Regarding claim 27, the first and second sealing members of Kooiman are flexible sealing rings.

Claim 29-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kooiman in view of Kaplan 3,854,789.

Regarding claim 29, Kooiman discloses the invention substantially as claimed. Kooiman discloses a device comprising: a hollow body forming an outer conductor 30 and defining a longitudinal axis therethrough; an inner conductor 20 extending through said outer conductor along said longitudinal axis, one end of said outer conductor and a corresponding end of said inner conductor adjacent thereto defining a signal input of said device, and opposite ends of said outer conductor and said inner conductor defining a signal output of said device; a first electrical insulator 25 disposed between said inner and outer conductors; a first water tight seal 63 between the first electrical

insulator and the inner conductor; a second water tight seal 62 between the first electrical insulator and the outer conductor; the first and second water tight seals being located on a line extending generally perpendicularly through the longitudinal axis (see attachment of fig 1). Koolman does not disclose the signal input of the device having one of an internal or external screw thread for connection to said signal source connector nor said signal output of said device having a screw thread for connection to said transmission line connector which is at an opposite end of the internal or external screw thread of the signal input. However, Kaplan discloses a device having external screw threads 14 and 16 at opposite ends. Therefore it would have been obvious to one of ordinary skill to modify the device of Kooiman by having an external screw threads at opposite ends for connection to signal sources as taught by Kaplan.

Regarding claim 30, the device of Kooiman includes third and fourth water tight seals 60,61 located on a line extending generally perpendicularly through the longitudinal axis, (see attachment of fig 1).

Regarding claim 31, it would have been obvious to one of ordinary skill to modify the device of Kooiman by having at least one additional electrical insulator between the inner and outer conductors, since it has been held that a mere duplication of essential working parts of a device involves only routine skill in the art. *St Regis Paper Co. V. Bemis Co.*, 193 USPQ 8.

Regarding claim 32, the device of Kooiman includes the outer conductor having at least one shoulder in abutment (at 31) with the first electrical insulator preventing relative movement in one longitudinal direction.

Regarding claim 33, the device of Kooiman includes the inner conductor having at least one shoulder (at 63, in fig. 1) in abutment with the first electrical insulator preventing relative movement in one longitudinal direction.

Allowable Subject Matter

Claims 34 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: patentability resides, at least in part, in the at least one outer conductor shoulder and the at least one inner conductor shoulder being located on a line extending generally perpendicularly through the longitudinal axis.

Response to Arguments

Applicant's arguments filed May 21, 2004 have been fully considered but they are not persuasive. In response to applicant's argument that Kooiman does not disclose water tight seals being located on a line extending generally perpendicularly through the longitudinal axis, the Examiner disagrees and draws applicant's attention to the attachment of fig. 1 of Kooiman, which shows these features.

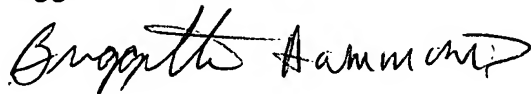
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brigitte R. Hammond whose telephone number is 571-272-2006. The examiner can normally be reached on Monday-Thursday and Alternate Fridays from 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A Bradley can be reached on 571-272-2800 ext. 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Brigitte R. Hammond

A handwritten signature in black ink, appearing to read "Brigitte Hammond", written in a cursive style.

June 10, 2004